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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/615,093	07/07/2003	Lars Erik Thon	AELU.P0006	8681

23349 7590 10/26/2005

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EXAMINER	
LAM, TUAN THIEU	
ART UNIT	**PAPER NUMBER**
2816	

DATE MAILED: 10/26/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)
	10/615,093	THON, LARS ERIK
	Examiner	Art Unit
	Tuan T. Lam	2816

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *07 October 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *07 July 2003* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

This is a response to the affidavits under 37 CFR 1.131 filed 10/7/2005. The finality of the Office on 5/9/2005 has been withdrawn in view of new grounds of rejection.

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-5 and 11-15 are rejected under 35 U.S.C. 102(b) as being anticipated by New (USP 6,492,922), newly cited prior art.

Figure 2 of New shows a circuit comprising at least one delay element (106-1 to 106-(N-1); 110-1 to 110-(M-1)) for receiving an input signal (analog input) and for generating a time delay in said signal, calibration circuit (104), coupled to said delay element, for calibrating said delay element so as to mach said time delay to a predetermined time period, and multiplier-summing circuit (R1 to Rn, Rf, 108), coupled to said delay element , for multiplying at least one signal output from said delay element and or summing at least one signal multiplied to generate an equalized signal as called for in claims 1, 5, 11 and 15.

Regarding claims 2, 4, 12 and 14, figure 3 shows the calibration circuit comprises a loop control (112) for receiving a reference signal, output from said delay element, and for generating a phase adjustment based on said delay of said reference signal propagated through said delay element, and said delay element comprises selectable parameters (column 4, liens 16-24) for

receiving a phase adjustment from said control loop for setting said selectable parameters based on said phase adjustment.

Regarding claims 3 and 13, control loop 104 is a delayed locked loop inherently having a phase comparator and a loop filter (column 4, lines 3-12).

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 7-8 and 17-18 are rejected under 35 U.S.C. 103(a) as being unpatentable over New (USP 6,492,922) in view of Yu et al. (US 20030090339).

Figure 2 of New shows a circuit comprising at least one delay element (106-1 to 106-(N-1); 110-1 to 110-(M-1)) for receiving an input signal (analog input) and for generating a time delay in said signal, calibration circuit (104), coupled to said delay element, for calibrating said delay element so as to mach said time delay to a predetermined time period, and multiplier-summing circuit (R1 to Rn, Rf, 108), coupled to said delay element , for multiplying at least one signal output from said delay element and or summing at least one signal multiplied to generate an equalized signal.

New does not show delay elements comprises means for selecting combinations of said lumped parameters to calibrate said delay element as called for in claims 7-8 and 17-18. Figure 2 of Yu et al. shows a delay line having a plurality of delay elements, each delay element is calibrated by a selecting means (switches) to provide an accurate delay time and less sensitive to

temperature fluctuation. Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to replace each of New's delay element (106-1 to 106-(N-1); 110-1 to 110-(M-1)) with a switch, an inductor and a capacitor for the purpose of providing an accurate delay time that is less sensitive to temperature fluctuation.

5. Claims 6 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over New (USP 6,492,922) in view of Yu et al. (US 20030090339).

Figure 2 of New shows a circuit comprising at least one delay element (106-1 to 106-(N-1); 110-1 to 110-(M-1)) for receiving an input signal (analog input) and for generating a time delay in said signal, calibration circuit (104), coupled to said delay element, for calibrating said delay element so as to mach said time delay to a predetermined time period, and multiplier-summing circuit (R1 to Rn, Rf, 108), coupled to said delay element , for multiplying at least one signal output from said delay element and or summing at least one signal multiplied to generate an equalized signal.

New does not show delay elements comprises transmission line and adjustable capacitance as called for in claims 6 and 16. Figure 2 of Yu et al. shows a delay line having a plurality of delay elements, each delay element having an transmission line (inductor L) and an adjustable capacitance means (switch S and capacitor C) such that the an accurate delay time is provided. Therefore, it would have been obvious to a person skilled in the art at the time of the invention was made to replace each of New's delay element (106-1 to 106-(N-1); 110-1 to 110-(M-1)) with a switch, an inductor and a capacitor for the purpose of providing an accurate delay time that is less sensitive to temperature fluctuation.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Tuan T. Lam whose telephone number is 571-272-1744. The examiner can normally be reached on Monday to Friday (7:30 am to 6:00pm).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, TIMOTHY P. CALLAHAN can be reached on 571-272-1740. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Tuan T. Lam
Primary Examiner
Art Unit 2816

10/22/2005